

App. No. 10/757,942  
Attorney Docket 3016.2.7 NP

### **Amendments to the Claims**

**Claim 1 (previously presented). A fluid mixing block for mixing fluid components of a reactive solution, comprising:**

**a mixing block housing;**

**at least two inlet ports and respective at least two inlet chambers formed within the mixing block housing, wherein the inlet ports and inlet chambers each accept an injection of a fluid from a supply source;**

**a mixing chamber, formed within the mixing block housing, wherein fluids injected from the inlet chambers are combined and mix to form a solution of desired reactivity at a lower pressure than a pressure of each respective inlet chamber;**

**a dispensing port, formed within the mixing block housing, wherein the desired solution exits the mixing block housing;**

**at least three individual chamber plugs, which are removably fastened to the mixing block housing to allow for manual visual inspection, cleaning, and adjustments of the inlet and mixing chambers; and**

**wherein a supply filter is mechanically fastened to each inlet chamber plug for filtering out suspended particles within a fluid flowing therethrough to prevent clogging of downstream chambers or other parts.**

**Claim 2 (canceled).**

**Claim 3 (previously presented). The fluid mixing block of claim 1, further comprising:**

**a flow control device attached to the mixing block housing between each inlet chamber and the mixing chamber to reduce the rate of flow of fluid flowing therethrough and to prevent fluid from flowing back upstream into a fluid supply source.**

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Claim 4 (currently amended). A fluid mixing block for mixing fluid components of a reactive solution, comprising:

at least a first and second inlet port and an outlet port;

at least a first and second inlet chamber and a mixing chamber;

a first backflow device coupled between the first inlet chamber and the mixing chamber;

a second backflow device coupled between the second inlet chamber and the mixing chamber;

at least three individual chamber plugs, which are removably fastened to the mixing block to allow for manual visual inspection, cleaning, and adjustments of the first, second and mixing chambers;

a first fluid located in the first inlet chamber at a first pressure, and the first fluid located in the mixing chamber at a second pressure that is less than the first pressure; [and]

a second fluid located in the second inlet chamber at one pressure, and the second fluid located in the mixing chamber at another pressure that is less than the one pressure[.]; and

wherein a supply filter is mechanically fastened to an inlet chamber plug for filtering out suspended particles within a fluid flowing therethrough to prevent clogging of downstream chambers or other parts.

Claim 5 (canceled).

Claim 6 (canceled).

Claim 7 (currently amended). The fluid mixing block of claim [6]4, wherein the first and second backflow device is configured to reduce a rate of flow of fluid flowing therethrough and to prevent fluid from flowing back upstream into a fluid supply source.

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Claim 8 (new). A fluid mixing block system for mixing fluids, comprising:

a mixing block housing;

at least two inlet ports and respective at least two inlet chambers formed within the mixing block housing, wherein the inlet ports and inlet chambers each accept an injection of a fluid from a supply source;

a mixing chamber, formed within the mixing block housing, wherein fluids injected from the inlet chambers are combined and mix to form a solution of desired reactivity at a lower pressure than a pressure of each respective inlet chamber;

a dispensing port, formed within the mixing block housing, wherein the desired solution exits the mixing block housing;

at least three individual chamber plugs, which are removably fastened to the mixing block housing to allow for manual visual inspection, cleaning, and adjustments of the inlet and mixing chambers; and

wherein a supply filter is mechanically fastened to each inlet chamber plug for filtering out suspended particles within a fluid flowing therethrough to prevent clogging of downstream chambers or other parts.

~~a housing;~~

~~a mixing chamber defined by the housing;~~

~~a first inlet port through the housing;~~

~~a first flow control device coupled between the inlet port and the mixing chamber;~~

~~a first access port, distinct from the first inlet port, through the housing, and~~

~~including orientation and dimensions sufficient to enable direct visual inspection of the first flow control device; and~~

~~a chamber plug removably coupleable to the access port.~~

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Claim 9 (currently amended). The fluid mixing block system of claim 8, ~~wherein the first flow control device comprises~~ further comprising a backflow prevention device coupled to one of the two inlet ports.

Claim 10 (canceled).

Claim 11 (canceled).

Claim 12 (canceled).

Claim 13 (currently amended). The fluid mixing block system of claim 8, wherein one of the two inlet ports further comprises ~~further comprising~~

~~a second inlet port through the housing,~~ oriented substantially parallel to the first inlet port, and disposed substantially non-collinear with the orientation of the first inlet port; and wherein

~~an outlet port through the housing,~~ the dispensing port comprises being substantially equidistant from the two inlet ports ~~first inlet port and the second inlet port,~~ and oriented substantially orthogonal to the two inlet ports ~~first inlet port.~~

Claim 14 (currently amended). The fluid mixing block system of claim 8, further comprising a plurality of mixing block shafts through the housing comprising orientation and dimensions sufficient to receive mounting shafts, whereby the mixing block may be mounted to a surface.

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Claim 15 (currently amended). The fluid mixing block system of claim 8, further comprising a wherein the first flow control device including comprises:

- a backflow prevention device; and
- a flow rate reducing orifice.

Claim 16 (canceled).

Claim 17 (new). The fluid mixing block of claim 1, further comprising a backflow prevention device coupled to one of the two inlet ports.

Claim 18 (new). The fluid mixing block of claim 1, wherein one of the two inlet ports further comprises oriented substantially parallel to the first inlet port, and disposed substantially non-collinear with the orientation of the first inlet port; and wherein the dispensing port comprises being substantially equidistant from the two inlet ports, and oriented substantially orthogonal to the two inlet ports.

Claim 19 (new). The fluid mixing block of claim 1, further comprising a plurality of mixing block shafts through the housing comprising orientation and dimensions sufficient to receive mounting shafts, whereby the mixing block may be mounted to a surface.

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Claim 20 (new). The fluid mixing block of claim 1, further comprising a first flow  
control device including:

a backflow prevention device; and

a flow rate reducing orifice.